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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 21

Application Number: 09/393,527
Filing Date: September 10, 1999
Appellant(s): HA ET AL.

Thomas R. Fitzgerald
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 17 November 2003

(1)   Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2)   Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3)   Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4)   Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5)   Summary of Invention

The summary of invention contained in the brief is correct.

(6)   Issues

The appellant's statement of the issues in the brief is correct.

(7)   Grouping of Claims

Appellant's brief includes a statement that claims 2, 4-6, and 9-15 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8)   Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9)   Prior Art of Record

5,379,433 A	Yamagishi	01-1995
5,930,209 A	Spitzenberger et al.	07-1999
5,761,301 A	Oshima et al.	06-1998

(10)   Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 2, 4-6, and 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamagishi (US 5,379,433) in view of Spitzenberger et al. (US 5,930,209) and further in view of Oshima (US 5,761,301).

Claims 2 and 10:

Yamagishi shows a hybrid optical recording disc with copy protection for use in a computer (column 2, line 1 – column 2, line 22; figure 2), the disc having a recording layer (column 1, line 13 – column 1, line 16; column 2, line 16 – column 2, line 22), a mastered read-only memory (ROM) area (column 1, line 13 – column 1, line 15), program tracks dedicated to contain computer software programs (column 2, line 16 – column 2, line 20), a recordable area for recording therein data generated by a computer user and for reading such recorded data from the recordable area to a computer (column 1, line 115 – column 1, line 16; column 2, line 20 – column 2, line 22); tracks of the ROM area includes at least one disc identifier containing disc identifier data embedded therein (column 2, line 12 – column 2, line 16) such that the disc identifier data will authenticate the installed disc addressing data and computer software programs for operation in

the computer from the hybrid optical recording disc (column 2, line 36 – column 2, line 56) but will not be transferred, thereby providing protection against copying the disc (column 2, line 23 – column 2, line 35); the program tracks of the ROM area include at least one program identifier track containing program identifier data embedded therein which identify the computer software programs (column 2, line 49 – column 2, line 63); the recordable area includes at least one software identifier track containing software identifier data recorded therein of the computer software programs which are included in the program tracks of the ROM area of the hybrid optical recording disc (column 2, line 49 – column 2, line 63).

Yamagishi does not explicitly show the disc has a substrate and the recording layer is disposed over the substrate, the substrate having the mastered read-only memory (ROM) area and the program tracks dedicated to contain computer software programs, and the substrate having the recordable area. However, as will be appreciated by one of ordinary skill in the art, an optical recording disc is well known in the art to be a disc composed of a substrate and a recording layer disposed over the substrate, the substrate having a mastered read-only memory (ROM) and program tracks dedicated to contain computer software programs, and the substrate having a recordable area.

Yamagishi still does not show the mastered read-only memory (ROM) area includes addressing tracks dedicated to contain disc addressing data which govern read and record processes to and from the computer; the addressing

tracks of the ROM area include the at least one disc identifier as a sub-code track. Spitzenberger et al. shows, in an analogous art related to software copy protection and optically readable discs on which digital data has been recorded, the mastered read-only memory (ROM) area includes addressing tracks dedicated to contain disc addressing data which govern read and record processes to and from the computer (column 2, line 10 – column 2, line 20); the addressing tracks of the ROM area include the at least one disc identifier as a sub-code track (column 2, line 20 – column 2, line 27). The addressing tracks of Spitzenberger et al. function in aiding software copy protection because the address values cannot be created using a standard optical recording apparatus (see Spitzenberger et al., column 2, line 18 – column 2, line 20) and thus cannot be recreated on an unauthorized copied disc. Additionally, by including the at least one disc identifier within the addressing tracks of Spitzenberger as a sub-code track the software copy protection system is further enhanced because the sub-code data cannot be controlled directly by a standard recording device (see Spitzenberger at al., column 2, line 25 – column 2, line 27) and thus cannot be manipulated or changed by the user. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the at least one disc identifier within the addressing tracks of Spitzenberger et al. as a sub-code track in Yamagishi for the explicit reasons discussed herein above.

Furthermore, the combination of Yamagishi/Spitzenberger does not discloses unique and separate DID's and SID's. However, Oshima, in column

36, lines 7-18, discloses separate Drive ID's, Disc ID's and Software ID's. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the optical disc properties of Yamagishi/Spitzenberger with Oshima's use of SID's and DID's because assigning a separate identifier each to the discs and software ensures that only authorized and proper use of the software is permitted.

Claims 4 and 12:

Yamagishi shows in figures 1-4 and related text the recordable area of the hybrid optical recording disc includes a recordable program area for recording therein data generated by a computer user and for reading such recorded data from the recordable program area to the computer (column 2, line 16 – column 2, line 22).

Claims 5 and 13:

Yamagishi shows in figures 1-4 and related text a method of providing a hybrid optical recording disc with copy protection for use in a computer, comprising the steps of: mastering a read-only memory (ROM) area and a recordable area on a disc so that the ROM area includes program tracks (column 1, line 13 – column 1, line 18; column 2, line 16 – column 2, line 20), the program tracks of the ROM area including at least one program identifier track containing program identifier data embedded therein which identify computer software programs contained in the ROM program tracks (column 2, line 12 – column 2, line 20; column 2, line 36 – column 2, line 63); an optical recording layer (column

1, line 13 – column 1, line 18); recording in a designated software identifier track of the recordable area a software identifier (column 2, line 12 – column 2, line 16), the software identifier recording step being implemented in correspondence with the software programs included in the program tracks of the disc's ROM area (column 2, line 49 – column 2, line 56), the software identifier also being provided to a computer user and corresponding to a hybrid optical recording disc having selected software program titles contained in the program tracks of the ROM area (column 2, line 49 – column 2, line 56).

Yamagishi fails to show the ROM area and recordable area are on a disc substrate; the ROM area includes addressing tracks, the addressing tracks including at least on disc identifier sub-code track for embedding therein authenticating disc identifier data which will not be transferred from the computer when installing the disc in the computer, thereby providing protection against copying the disc; coating the optical recording layer over the mastered disk substrate. However, Spitzenberger et al. shows in an analogous art related to software copy protection and optically readable discs on which digital data has been recorded, in figures 1-9 and related text, the addressing tracks including at least one disc identifier sub-code track for embedding therein authenticating disc identifier data which will not be transferred from the computer when installing the disc in the computer, thereby providing protection against copying the disc (column 2, line 10 – column 2, line 26). The addressing tracks of Spitzenberger cannot be created using a standard optical recording apparatus (see

Spitzenberger et al., column 2, line 18 – column 2, line 20) and thus cannot be recreated on an unauthorized copied disc. Additionally, by embedding the at least one disc identifier within the addressing tracks of Spitzenberger as a sub-code track the software copy protection system is further enhanced because the sub-code data cannot be controlled directly by a standard recording device (see Spitzenberger at al., column 2, line 25 – column 2, line 27) and thus cannot be manipulated or changed by the user. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the at least one disc identifier within the addressing tracks of Spitzenberger et al. as a sub-code track in Yamagishi for the explicit reasons discussed herein above.

Yamagishi in view of Spitzenberger still fails to explicitly show the ROM area and recordable area are on a disc substrate; coating the optical recording layer over the mastered disk substrate. However, as will be appreciated by one of ordinary skill in the art, an optical recording disc is well known in the art to be a disc substrate having ROM and a recordable area; the disc having an optical recording layer coated over a mastered disc substrate.

Claims 6 and 15:

Yamagishi substantially shows the invention as claimed as applied to claim 2 above, but fails to show the disc identifier data are embedded in a disc identifier sub-code track within a lead-in area of the ROM area. Spitzenberger et al. shows in an analogous art related to software copy protection and optically readable discs on which digital data has been recorded, in figures 1-9 and

related text, a the disc identifier data are embedded in a disc identifier sub-code track within a lead-in area of the ROM area (column 2, line 10 –column 2, line 27; column 2, line 45 – column 2, line 51). The lead-in area of Spitzenberger et al. functions in aiding software copy protection because the address values defining the lead-in area cannot be created using a standard optical recording apparatus (see Spitzenberger et al., column 2, line 18 – column 2, line 20) and thus cannot be recreated on an unauthorized copied disc. Additionally, by embedding the at least one disc identifier within the lead-in area of Spitzenberger as a sub-code track the software copy protection system is further enhanced because the sub-code data cannot be controlled directly by a standard recording device (see Spitzenberger at al., column 2, line 25 – column 2, line 27) and thus cannot be manipulated or changed by the user. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the at least one disc identifier within the lead-in area of Spitzenberger et al. as a sub-code track in Yamagishi for the explicit reasons discussed herein above.

Claim 9:

Yamagishi shows in figures 1-4 and related text a hybrid optical recording disc having copy protection for use in a computer (column 2, line 1 – column 2, line 22; figure 2) comprising: a read-only area having preformed information including at least one program and disc identifier data (column 1, line 13 – column 1, line 15; column 2, line 12 – column 2, line 20); a recordable area (column 2, line 15 – column 1, line 16; column 2, line 20 – column 2, line 22); the

disc identifier data being adapted to authenticate a transferred program in the computer to permit the program to be operated on the computer (column 2, line 49 – column 2, line 63).

Furthermore, the combination of Yamagishi/Spitzenberger does not discloses unique and separate DID's and SID's. However, Oshima, in column 36, lines 7-18, discloses the use of separate Drive ID's, Disc ID's and Software ID's. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the optical disc properties of Yamagishi/Spitzenberger with Oshima's use of SID's and DID's because assigning a separate identifier each to the discs and software ensures that only authorized and proper use of the software is permitted.

In addition, refer to the rejection of claims 2 and 10 above.

Claim 11:

Yamagishi shows in figures 1-4 and related text a hybrid optical recording disc with copy protection for use in a computer (column 2, line 1 – column 2, line 22; figure 2); the disc having a recording layer (column 1, line 13 – column 1, line 16; column 2, line 16 – column 2, line 22), a mastered read-only memory (ROM) area (column 1, line 13 – column 1, line 15) and a recordable area for recording data generated by a computer user and for reading such recorded data form the disc to a computer (column 1, line 15 – column 1, line 16; column 2, line 20 – column 2, line 22); the ROM area includes disc identifier data embedded therein (column 2, line 12 – column 2, line 16), such disc identifier data authentication for

computer operation (column 2, line 36 – column 2, line 63) but will not be transferred from the computer to thereby provide protection against copying the disc (column 2, line 23 – column 2, line 35); the program area of the ROM area contains program tracks dedicated to program data corresponding to computer software programs and such program data will be transferred to a memory device of a computer when installing the hybrid optical recording disc on the computer (column 1, line 16 – column 1, line 20); the program area of the ROM area includes at least one program identifier track containing program identifier data embedded therein which identify the computer software programs (column 2, line 49 – column 2, line 56); the recordable area of the disc includes at least one software identifier track in the recordable area, the software identifier track containing software identifier data recorded therein of the computer software programs which are included in the program tracks of the ROM area of the disc, such software identifier data being provided to a computer user, thereby enabling installation of the disc's software program data on a computer (column 2, line 49 – column 2, line 56).

Yamagishi fails to explicitly show the hybrid optical disc is a disc having a substrate and the recording layer is disposed over the substrate, the substrate having the mastered read-only memory (ROM) area and which is comprised of a lead-in area, a program area, and a lead-out area, and the substrate having the recordable area. However, as will be appreciated by one of ordinary skill in the art, an optical recording disc is well known in the art to be a disc having a

substrate and a recording layer disposed over the substrate having a mastered

read-only memory (ROM) area and the substrate having the recordable area.

Yamagishi still fails to show the mastered read-only memory (ROM) is

comprised of a lead-in area, a program area, and a lead-out area; the lead-in

area of the ROM area includes addressing tracks dedicated to disc addressing

data which govern read and record processes to and from a computer, at least

one of the addressing tracks being a disc identifier sub-code track containing the

disc identifier data embedded therein; the lead-out area of the ROM area

contains data instructing a computer of a termination of the ROM program area

and data indicating a start of a new lead-in area associated with a recordable

area of the hybrid optical recording disc.   Spitzenberger et al. shows, in an

analogous art related to software copy protection and optically readable discs on

which digital data has been recorded, in figures 1-9 and related text, the read-

only memory (ROM) area is comprised of a lead-in area, a program area, and a

lead-out area (column 2, line 45 – column 2, line 51); the lead-in area of the ROM

area includes addressing tracks (column 2, line 46 – column 2, line 51) dedicated

to disc addressing data which govern read and record processes to and from a

computer (column 2, line 11 – column 2, line 20), at least one of the addressing

tracks being a disc identifier sub-code track containing the disc identifier data

embedded therein (column 2, line 21 – column 2, line 27); the lead-out area of

the ROM area contains data instructing a computer of a termination of the ROM

program area and data indicating a start of a new lead-in area associated with a

recordable area of the hybrid optical recording disc (column 2, line 45 – column 2, line 51). The lead-in area, program area and lead-out area in conjunction with the addressing tracks of Spitzenberger et al. function in aiding software copy protection because the address values cannot be created using a standard optical recording apparatus (see Spitzenberger et al., column 2, line 18 – column 2, line 20) and thus cannot be recreated on an unauthorized copied disc. Additionally, by including the at least one disc identifier within the addressing tracks of Spitzenberger as a sub-code track the software copy protection system is further enhanced because the sub-code data cannot be controlled directly by a standard recording device (see Spitzenberger at al., column 2, line 25 – column 2, line 27) and thus cannot be manipulated or changed by the user. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the lead-in area, program area and lead out area of Spitzenberger and the at least one disc identifier within the addressing tracks of Spitzenberger et al. as a sub-code track in Yamagishi for the explicit reasons discussed herein above.

Furthermore, the combination of Yamagishi/Spitzenberger does not discloses unique and separate DID's and SID's. However, Oshima, in column 36, lines 7-18, discloses separate Drive ID's, Disc ID's and Software ID's. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the optical disc properties of Yamagishi/Spitzenberger with Oshima's use of SID's and DID's because assigning a separate identifier each to

the discs and software ensures that only authorized and proper use of the software is permitted.

Claim 14:

The combination of Yamagishi/Spitzenberger does not discloses unique and separate DID's and SID's. However, Oshima, in column 36, lines 7-18, discloses separate Drive ID's, Disc ID's and Software ID's. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the optical disc properties of Yamagishi/Spitzenberger with Oshima's use of SID's and DID's because assigning a separate identifier each to the discs and software ensures that only authorized and proper use of the software is permitted.

(11)   Response to Argument

Issue 1

Appellant asserts that the claims have a number of limitations that are not shown in the cited references. Specifically, Appellant states:

1. Yamagishi does that show a DID, PID, or SID;

2. Yamagishi does that showed an SID in a recordable area;

3. Spitzenberger does not show at least one DID;

4. Oshima does not show a software ID; and

5. The references in combination do not show the invention.

With regard to assertions 1-4, it appears as if the appellant is attacking the references piecewise instead of in combination as intended by the Examiner and shown in the rejections above under 35 U.S.C 103. As shown above, each of the references taken in combination adequately support the rejections. Specifically, Yamagishi shows recordable and non-recordable areas of an optical medium i.e. a compact disk. Yamagishi also shows an ID code stored on the ROM area which is non-recordable and non alterable by the user. Yamagishi also discloses that the optical medium has a recordable area. See at least column 2 lines 23 through 48. It is the professional opinion of the Examiner that it would be an obvious modification to one of ordinary skill in the optical medium recording arts to allow an ID to be recorded in either the recordable area or the non-recordable area without placing undue burden on the public.

Spitzenberger discloses a recordable optical medium with lead-in and lead-out areas (column 2 lines 46 to 51), as well as addressing labels assigned to different sectors of the optical medium, which reads on the software identification (SID) element of the claim language, program identification (PID) element of the claim language.

Oshima discloses disk identification (DID) and software identification (SID) contained on an optical medium, as well as Drive Identifications. See column 36 lines 8 through 18.

In combination, Yamagishi, Spitzenberger, and, Oshima disclose a recordable optical medium which contain recordable areas (RAM), non-

recordable areas (ROM), lead-in and lead-out areas, and three identification systems that include Disk IDs, Software IDs, and Programmed IDs. It would have been obvious to one of ordinary skill in the optical medium recording arts to combine the techniques of Yamagishi, Spitzenberger, and Oshima to protect against fraudulent and unauthorized use, distribution, or sale of copyrighted digital files. Because the optical recording medium contains recordable and non-recordable sectors it is an obvious modification to place into those sectors various coded identification elements that prevent the illegal copying of the files contained on the disk. Because Oshima shows a combination of three separate identification techniques to prevent illegal copying, it is an obvious modification for one of ordinary skill in the art to use the three-identification technique of Disk IDs, Software IDs, and Programmed IDs. As one of ordinary skill in the optical medium recording arts would conclude, assigning a identification strings to program tracks, software applications, and individual disks are extraordinarily well known in the optical recording medium arts. For example, program tracks are listed sequentially on any optical media such as, for example, song tracks on a compact disk, movie chapters on a DVD, or various files recorded onto a compact disk. Each of these digital files contained on the disk have associated program identifications and software identifications. Since the claim language does not specify the nature, length, or composition of these identification codes, the Examiner has taken the broadest and most reasonable interpretation of the limitations. To this end, it is the professional opinion of the Examiner that string

of characters identifying the programs and software on a disk read on the

program identification and software identification elements of the claim language.

For the above reasons, it is believed that the rejections should be
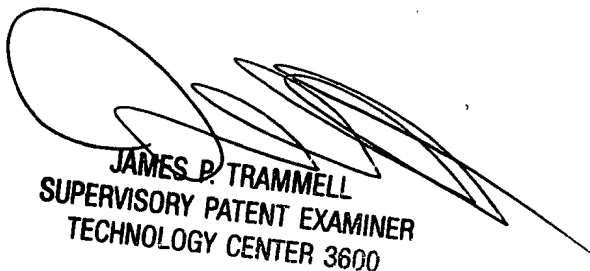
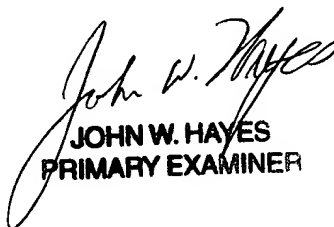sustained.

Respectfully submitted,

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February 4, 2004

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